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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner: Tu, S.

Case: FJ 122

Applicant(s): Marina Vrlijc et al

Serial No.: 09/105,117

#25 9/23/00

In Response To
Paper No: 24

Filing Date: 17/06/98

Art Unit: 1653

Title: PROCESS FOR THE MICROBIAL PRODUCTION OF AMINO ACIDS BY BOOSTED ACTIVITY OF EXPORT CARRIERS

Hon. Commissioner of Patents and Trademarks
Washington, DC 20231

September 13, 2000

SIR:

In response to the Official Action dated 08/17/00.

It is firmly believed that the present application is presented in an understandable form fully sufficient for the examination of the application. There should be no need to correct formal matters unless the application is indicated by the Examiner to be allowable. Then, of course, any amendments required to overcome formal objections would be provided by applicants and could be provided more efficiently. It is noted in this connection that Dr. Stole, the Examiner previously assigned to the case, had indicated in a telephone call that, after approval of the sequences by the respective office, the application was in a state ready for subjective examination.

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The amino acid sequences of Table 1 of the present application relate to a protein which exerts a regulatory function to the amino acid exporter. For an explanation of the terms, it may be mentioned that the coding nucleotide sequence of the regulator is designated lys G. In the application text, the wording is "regulatory gene sequence" = lys G.

In accordance therewith, the designation "export carrier" refers to the membrane protein which provides for the actual transport of the amino acid out of the cell, that is, the lysine export carrier. The nucleotide sequence, which codes for this export carrier corresponds in the text of the application to the term "export gene", that is ,"export gene" = lys E. The respective description is found in the application on page 11, par. C).

Consequently, the sequences are clearly identified in the description and in the claims.

The Examiner's requirements relate therefore only to formalities which do not prevent a subjective examination of the present application. An adaptation of the specification, if necessary, should therefore be postponed until the application is found to be allowable.

In accordance with CFR 1.71, the specification must include a description, which is in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains or with which it is most nearly connected, to make and use the same.

It is again pointed out that the nucleotide sequence given in table 2 is coded for the export carrier (lysE) and corresponds to the "sense DNA". The regulator (lys G) is coded in the opposite reading direction ("anti-sense-DNA" or counter-strand). A concurrent representation of this "anti-sense-DNA" is not possible with the PatentIn program. Consequently, the representation of the amino acid sequence of table 1, which is coded by this counterstrand, is not possible with the PatentIn program.

A separate representation of the "DNA counterstrand", which codes for lys G and an amino acid sequence (as in table 1), correspondingly derived therefrom can be generated in PatentIn format only with substantial expenses and efforts which would result in a loss of time with respect to the start of the subjective examination, which is not

justifiable for Applicants. The information content of the application is complete and in a fully understandable form so that the formal requirements of the Examiner, that is, the efforts associated therewith are excessive considering the advantages and the lack of need therefor for the examination procedure as such.

The requirement of the Examiner to identify in the specification the amino acid sequence as a three letter code instead of the single letter code used is not understandable in Applicants's view: An amino acid is clearly defined by the genetic code. This definition is textbook knowledge and well known to any expert in the field. The representation of the amino acid either by a three-letter code or by a single letter code therefore has no influence on the information content of the sequence and therefore is not important at least as far as the examination procedure is concerned.

Permission is therefore respectfully requested that any amendments to overcome the formal objections are postponed until after allowance of the application or at least an indication of allowable subject matter in the application.

Respectfully submitted,

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